

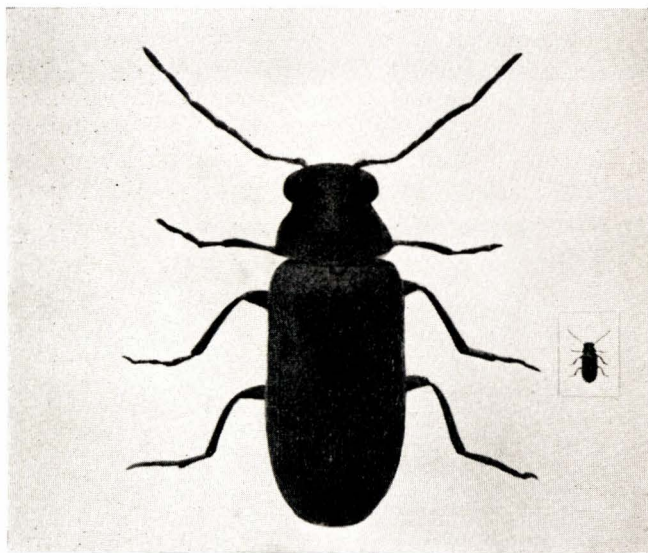
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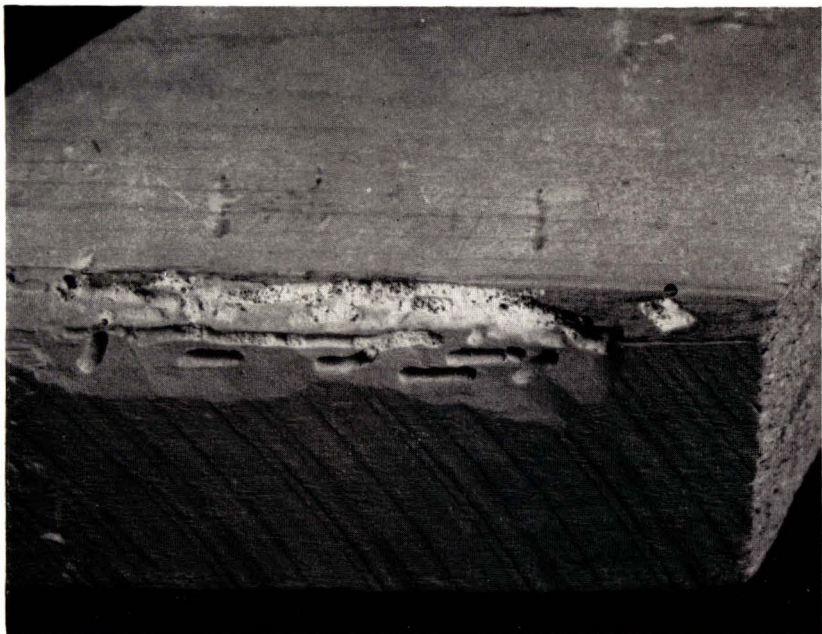
Ernobius mollis
A Bark Borer of Softwoods

Ernobius mollis (an insect which has no popular name) is a species belonging to the furniture beetle family (Anobiidae) which includes such well-known pests as the common furniture beetle (*Anobium punctatum*) and the death-watch beetle (*Xestobium rufovillosum*). Damage caused by *Ernobius mollis* is usually of little direct economic significance and its importance lies chiefly in the

FIG. 1. *Ernobius mollis* (x 10). Inset : natural size

frequency with which it is mistaken for common furniture beetle attack—a much more serious pest. Besides the United Kingdom, *Ernobius mollis* is common on the continent of Europe, especially in Scandinavia where unbarked softwood (coniferous) structural timbers are extensively used. It also occurs in other countries with a temperate climate in both the northern and southern hemispheres.

The life cycle normally extends over one or two years and comprises the four developmental stages of egg, larva, pupa and adult. Eggs are laid in the bark of softwoods. The whitish larvae are curved and have three pairs of legs



(a)



(b)

FIG. 2. *Ernobius mollis* damage (a) in waney-edged softwood (bark partly removed) and (b) in a knot (x 1)

and a pair of brown jaws ; although smaller than fully grown death-watch beetle larvae they resemble them in having a more hairy appearance than the larvae of the common furniture beetle. The pupae develop into reddish brown adults (Fig. 1) which emerge through circular exit holes about $\frac{1}{10}$ inch in diameter between May and August. The beetles are larger than those of the common furniture beetle, being about $\frac{1}{8}$ to $\frac{1}{4}$ inch long and can also be distinguished by the fact that the head is visible from above and by the greater length of the antennae (feelers).

Timbers attacked and damage caused

Ernobius mollis can only breed where bark is present, but with this proviso attack may be found outdoors in dead parts of softwood trees, posts or in out-buildings or in partly dried logs at sawmills or in sawn timber in storage premises. Green timber is not attacked. Infestation can spread from old discarded slabs or other off-cuts. In newly erected buildings attack by *Ernobius mollis* is often seen in the waney (unbarked) edges of softwood roofing timbers or floor joists or in bark adhering to knot holes (Fig. 2). Although attack may spread into the immediately adjacent sapwood, penetration is slight and the damage quite unimportant.

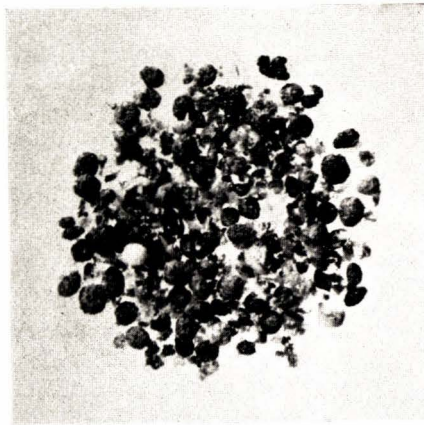
Imported timber buildings and flush doors are sometimes constructed with unbarked framing members and when these are covered with cladding or plywood the beetles may bore through these materials in order to emerge. Although no feeding occurs in such boarding, the exit holes of the beetle may be unsightly. *Ernobius mollis* occurs in the bark of softwood packing-case timbers and when bark is present on the inside of such cases the beetles may damage the contents on emerging if this consists of soft materials such as paper or fabrics.

Recognition of attack

Attack can be identified by its association with the waney edges of softwoods, and by examination of the bore-dust under a lens. This dust consists of bun-shaped pellets (Fig. 3) similar to but smaller than those produced by fully grown larvae of the death-watch beetle and quite different in shape from those of the common furniture beetle. The bore-dust is mostly brown in colour since the larvae feed chiefly on the bark, but also contains some lighter-coloured pellets due to superficial attack on the immediately adjacent sapwood. These lighter-coloured pellets are conspicuous amongst the darker ones and this mixed coloration enables the bore-dust of *Ernobius mollis* to be readily distinguished from that of the death-watch beetle.

Remedial treatments

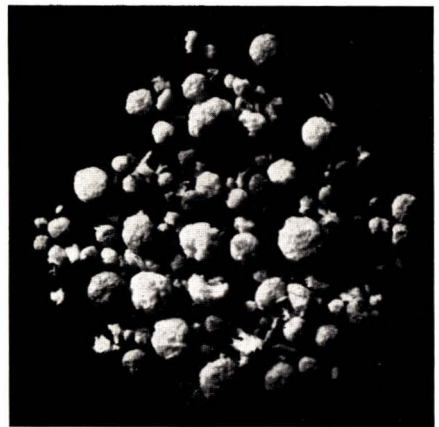
Attack normally ceases within a few years, due either to peeling of the bark or perhaps to exhaustion of the larval food supply, and cannot spread to woodwork free from bark. Owing to these restrictions and the trivial nature of the damage, remedial measures are unnecessary in the case of structural timbers and joinery. If desired, however, attack can be eliminated from such situations by cutting away all bark from the waney edges. No insecticide treatment is needed. Where attack is present in concealed woodwork in timber-



(a)



(b)



(c)

FIG. 3. Bore-dust of (a) *Ernobius mollis*, (b) common furniture beetle, (c) death-watch beetle (x 8)

framed buildings or flush doors, fresh holes may continue to appear in the superficial boarding for some time. In such instances, it may be considered necessary to remove the boarding in order to strip the bark from the framing timbers. Fumigation with methyl bromide or hydrocyanic acid gas would probably be an effective alternative but, owing to the lethal nature of these gases, it is necessary to employ specialist firms to undertake the treatments and to vacate the premises during the fumigation and subsequent ventilation unless the woodwork can be removed and treated in suitable premises elsewhere. The cost of such measures would seldom be justified.

Bark should be removed from softwood packing-case timbers to avoid possible damage to the contents from emerging beetles. The Australian

Quarantine Authorities insist on this measure and all packing cases are liable to inspection at ports of entry to that country.

Prevention of attack

Removal of all bark from waney-edged softwoods will effectively prevent infestation by *Ernobius mollis*.

Information on insect pests of timber, their life history and methods of control may be obtained from the Director, Forest Products Research Laboratory, (D.S.I.R.), Princes Risborough, Aylesbury, Bucks. Information on other wood-boring insects mentioned in this leaflet is contained in the following publications :

The Death-Watch Beetle. *Forest Products Research Laboratory Leaflet* No. 4 (Revised 1959). Price 1s. 3d., by post 1s. 6d.

The Common Furniture Beetle. *Forest Products Research Laboratory Leaflet* No. 8 (Revised 1959). Price 1s. 6d., by post 1s. 9d.

Copies of the above Leaflets may be obtained from H.M. Stationery Office at the addresses on the following page.

FOREST PRODUCTS RESEARCH LABORATORY,
Princes Risborough,
Aylesbury, Bucks.

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